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ENGLISH

INSTALLATION CHECK GUIDE

MONITOR SIGNAGE MODELS

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- Media Player
- Transparent Signage
- Video Wall

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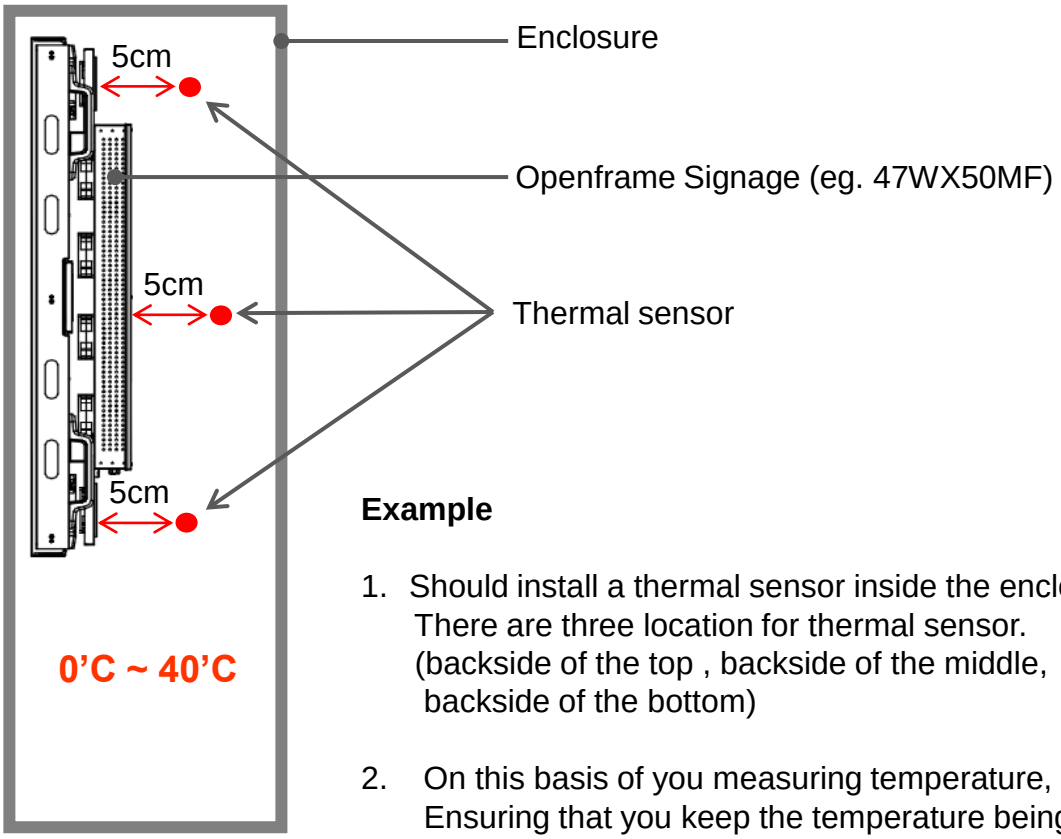
1-1. Keep temperature 0˚C ~ 40˚C(Mandatory)

- When designing the enclosure, the temperature inside the enclosure must be maintained between 0˚C and 40˚C.

The Measurement method for checking the operating temperature inside the enclosure



Example

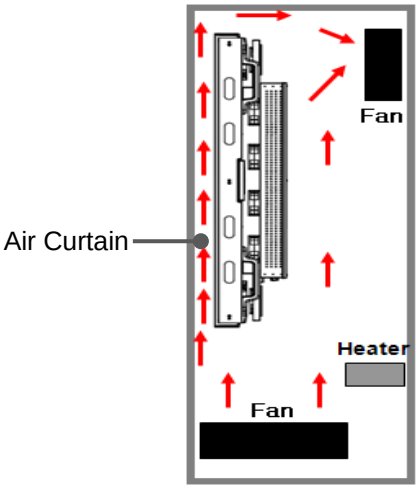
1. Should install a thermal sensor inside the enclosure.
   There are three location for thermal sensor.
   (backside of the top , backside of the middle,
   backside of the bottom)

2. On this basis of you measuring temperature,
   Ensuring that you keep the temperature being 0˚C ~ 40˚C

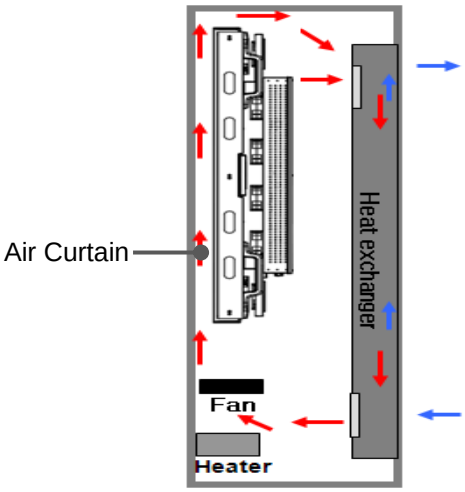
1-2. Consider using a cooling & heater solution (Mandatory)

- To maintain the temperature inside the enclosure, you may consider using a cooling and heater solution such as an air conditioner, heat exchanger, or combined cooler and heater depending on the external environment. (Please see below examples)
- You can also employ an air flow circulation system and air curtain* between the front panel and the enclosure.
- Recommend to design the exterior of the enclosure to meet with the IP65 standard.
- Use a dust filter to prevent dust .(At air inlet and outlet)

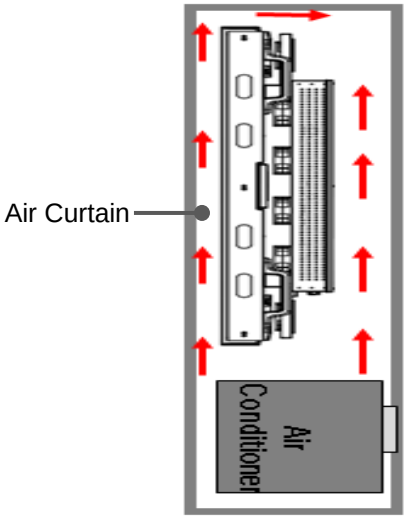
Example 1 : Enclosure (Just fans)



Example 2 : Enclosure (Heat exchanger)

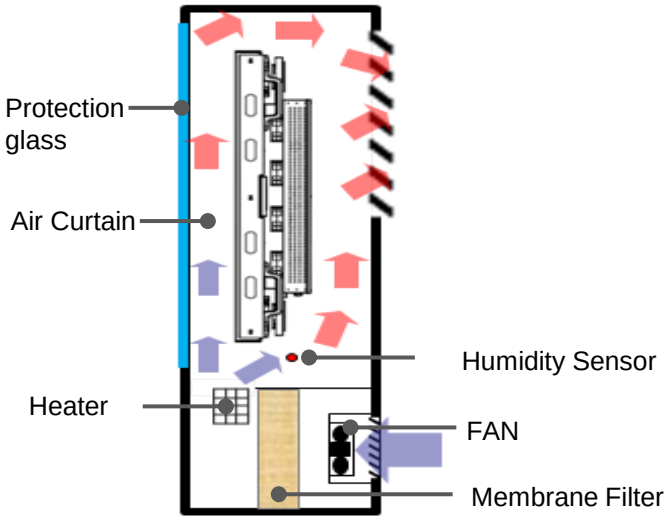


Example 3 : Enclosure (Air conditioner)



*Air curtain :
Air flow circulation system between the front panel and the enclosure.

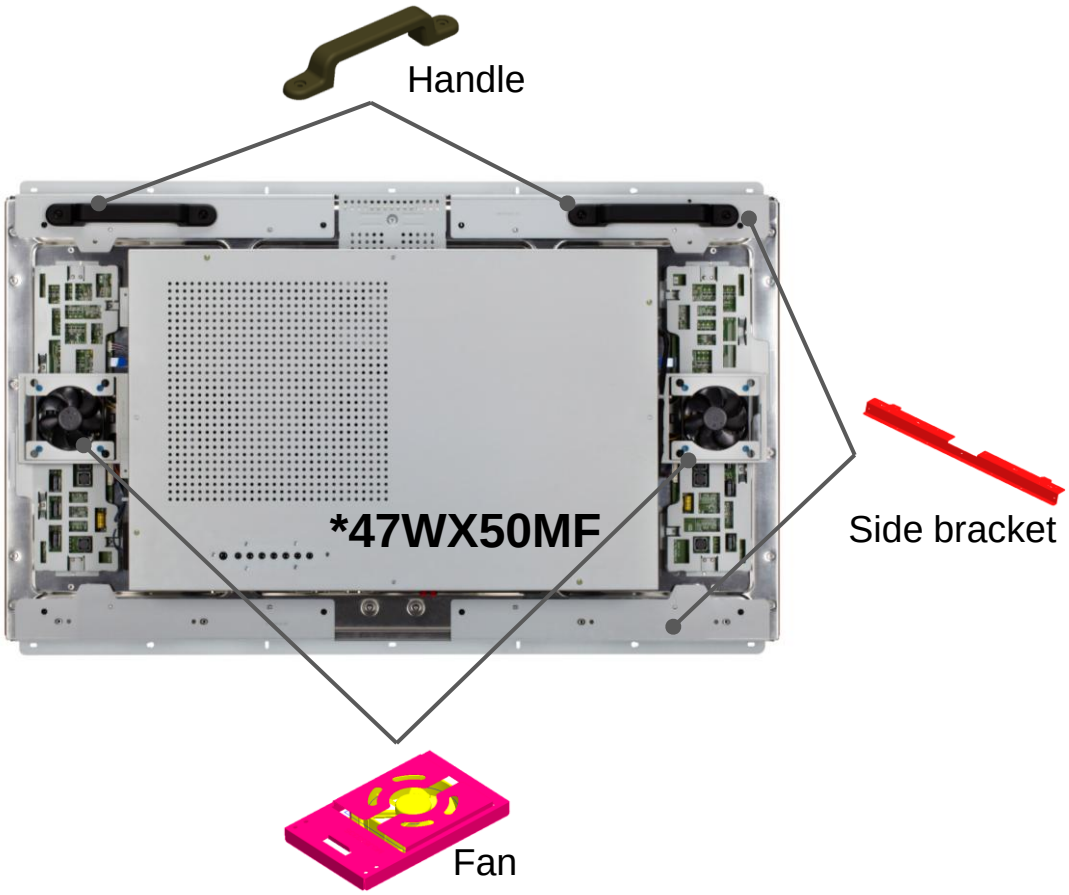
Example 4 : Direct Air Cooling Solution



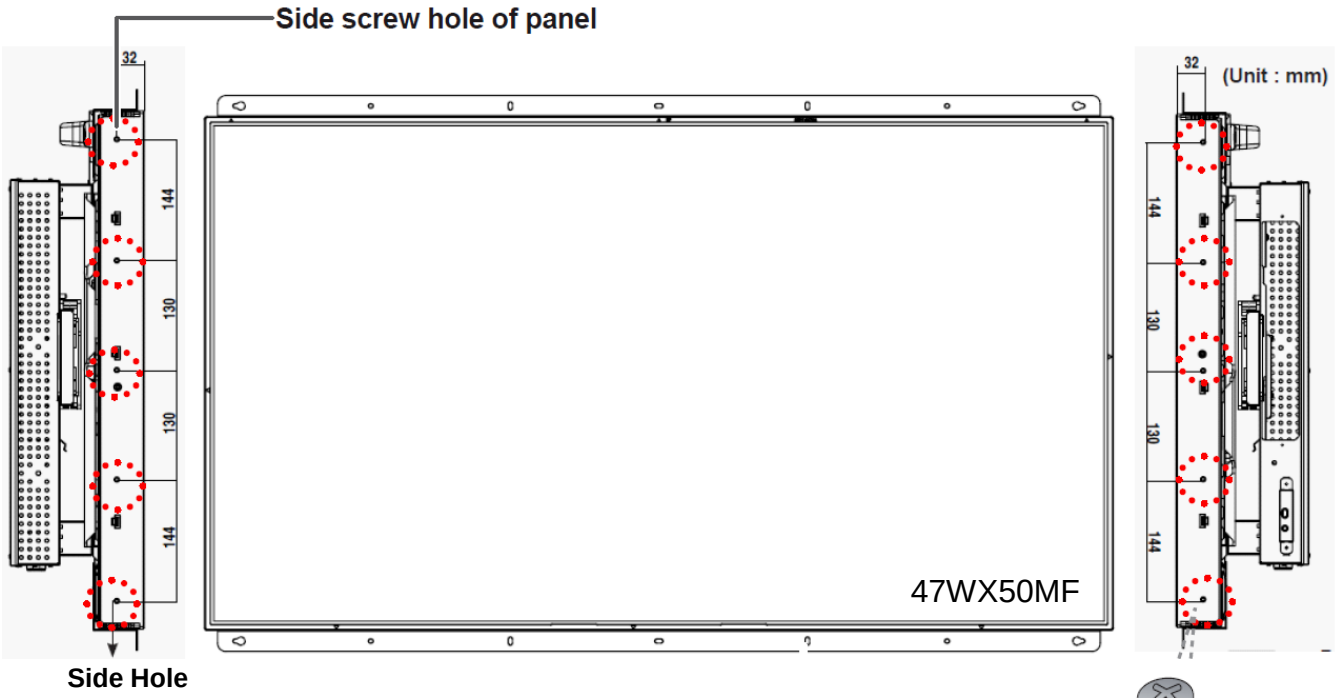
- Filter should be used for filtering out bugs, dust and water.
- For preventing from rust of lead frame in circuit board, operates the Heater if relative humidity is high.

1-3. Do not disassemble Handle, Fan or Side bracket (Mandatory)

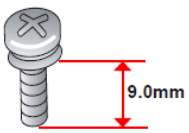
- Do not disassemble the parts such as Handle, Fan or Side bracket for preventing of product safety & function problem



1-4. Do not use a screw is longer than 9.0mm (Mandatory)



Side Hole

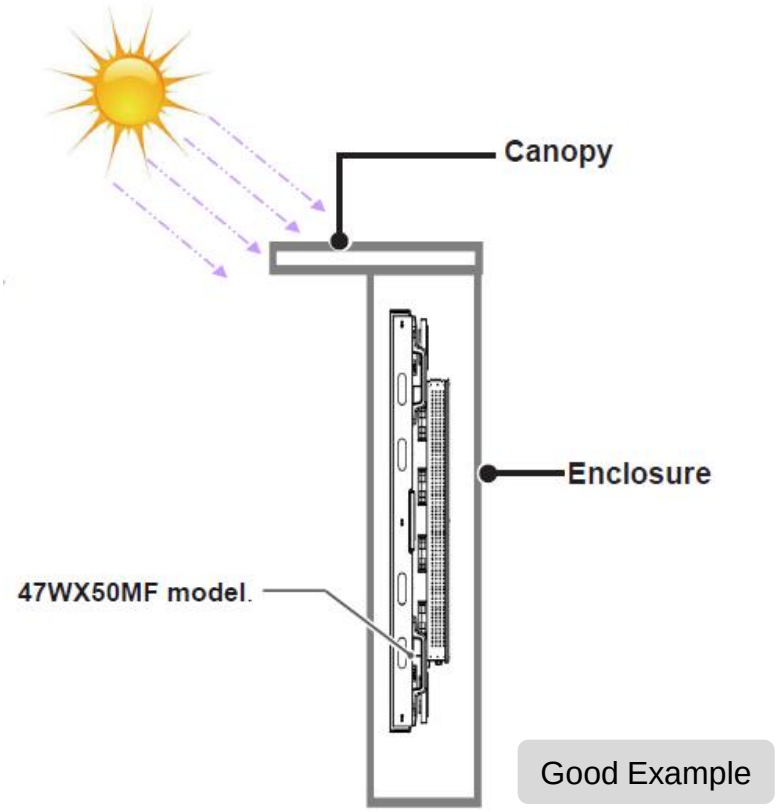


- You must use the side screw holes when mounting the panel
- The Side screw holes are M4.0 Tap , Torque 4~5Kgf.cm, pitch 0.7mm
- The Screw hole depth of the panel is:9.0mm (Max)
- If a screw is longer than 9.0mm, it may cause damage to the LCD panel
- It is advisable to only use spring washer-type screws.

▪Example : Spring washer type

1-5. Recommend not to place the front panel in direct sunlight

• It is recommended not to place the front panel in direct sunlight.
• For Example-Using a canopy may prevent the enclosure temperature increase due to direct sunlight.

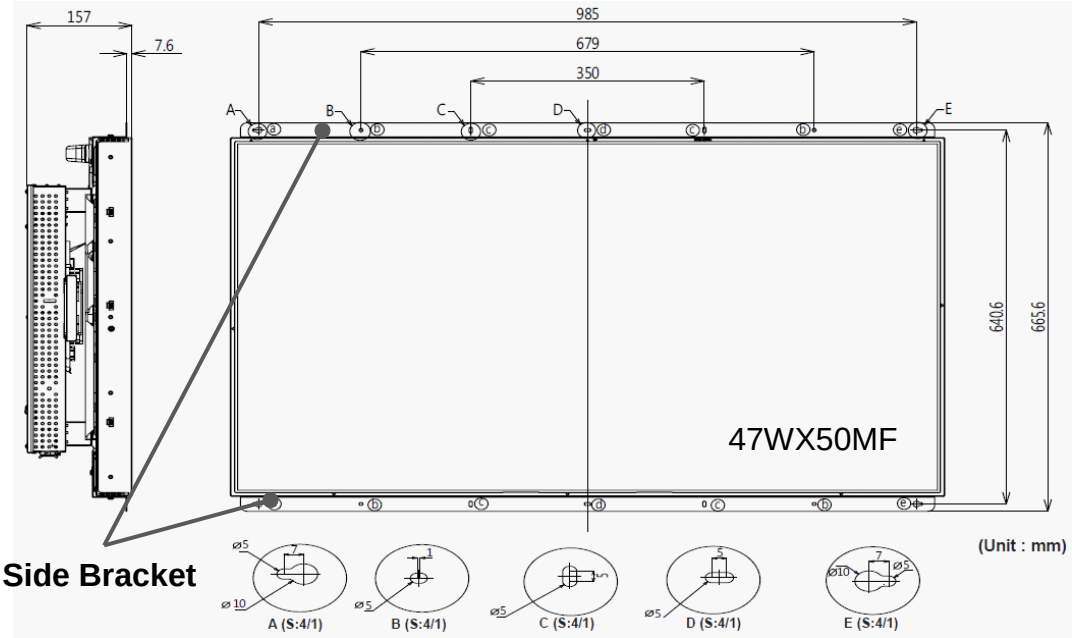


NOTE

• To prevent sunlight, consider to attach a UV film on the glass

1-6. Use the side bracket to mount into the enclosure

• You should use the side bracket to mount the signage display into the enclosure.

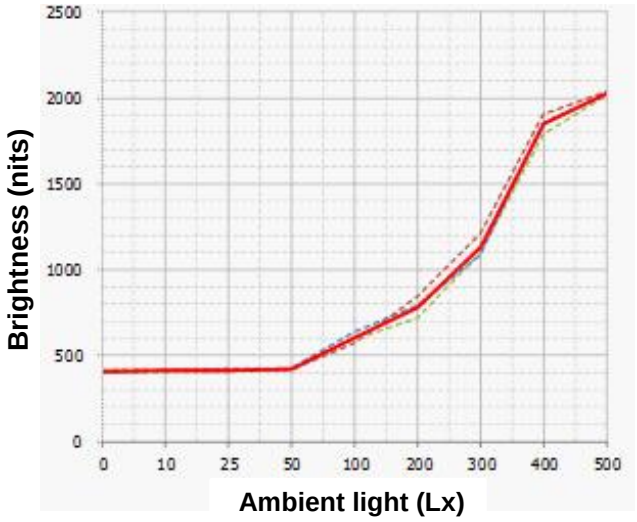


1-7. Refer to brightness of according to ambient luminance

•This is measurement of 47WX50MF's Auto Brightness Control function

Auto Brightness Control Curve(47WX50MF)

Ambient Luminance (Lx)	Brightness (nits)
0	410
10	415
25	419
50	421
100	602
200	784
300	1131
400	1850
500	2024

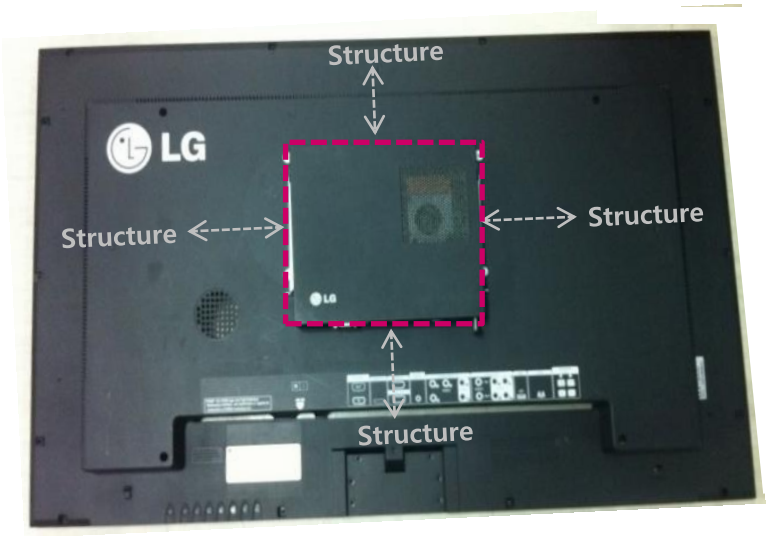


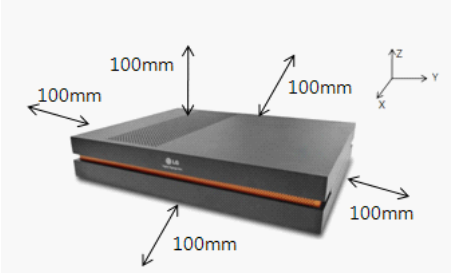
MEDIA PLAYER

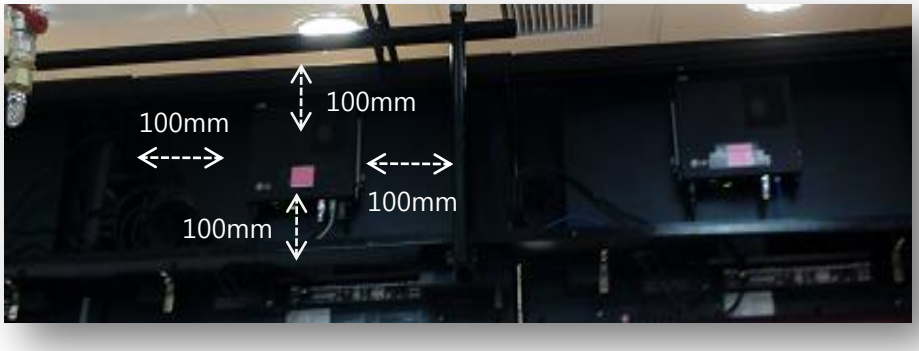
2-1. Minimum distance between media player and structure (100mm)

- Monitor Back Cover Mount Condition
- Application model : NC1000, NA1000, NA1100, MP500, PC100
- Minimum distance between player & structure : 100mm distance to X,Y,Z axis direction
- 0˚C< Ambient temperature <40˚C

Piggy bag type

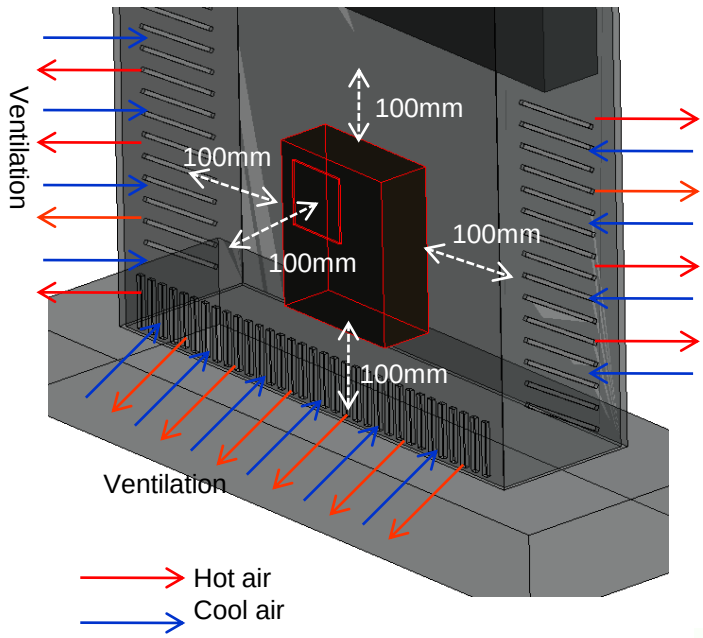




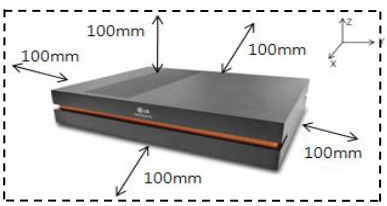


2-2. Install Dust filter & keep temperature 0˚C ~ 40˚C (Mandatory)

- Embedded Mount Condition
- Application model : NC1000, NA1000, NA1100, MP500, PC100
- Minimum distance between media player and structure : 100mm distance to X,Y,Z axis direction
- Should install dust filter in ventilation area
- When the unit is operating, you must keep temperature inside being 0˚C ~ 40˚C



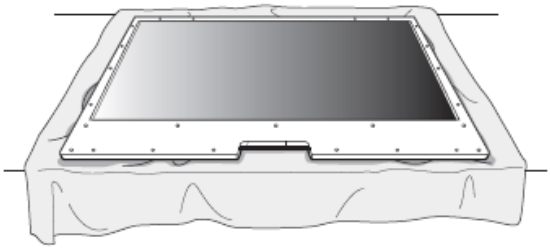
▪ Dust filter



TRANSPARENT SIGNAGE

3-1. Preparation for Installation

- Preparation for Installation
- Please refer to the “LVDS Pin Map Guide” in the manual.

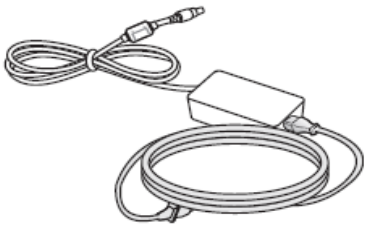


▪ **Transparent signage (26TS30MF/47TS30MF)**

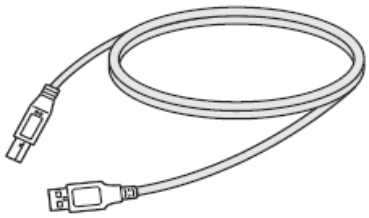
- Need to purchase separately the below items

Preparation Items

*For ①,②,③ items, they will be developed by `2013.1Q.



① Adapter Cable



HDMI Cable

② LVDS Cable

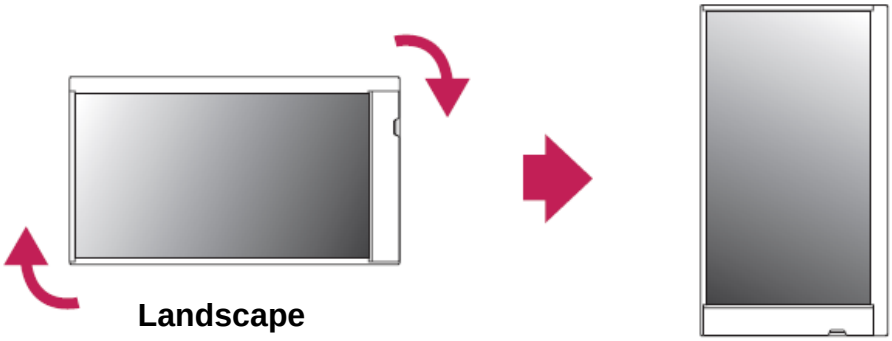
③ AD Board

PC / Media Player

Lighting

3-2. Portrait mode: Rotate the set clockwise 90˚(Mandatory)

- Portrait Layout(Only supported for 47TS30MF)
- To install in portrait mode, rotate the set clockwise 90 degrees when looking at the front. (The AD board should support portrait mode)

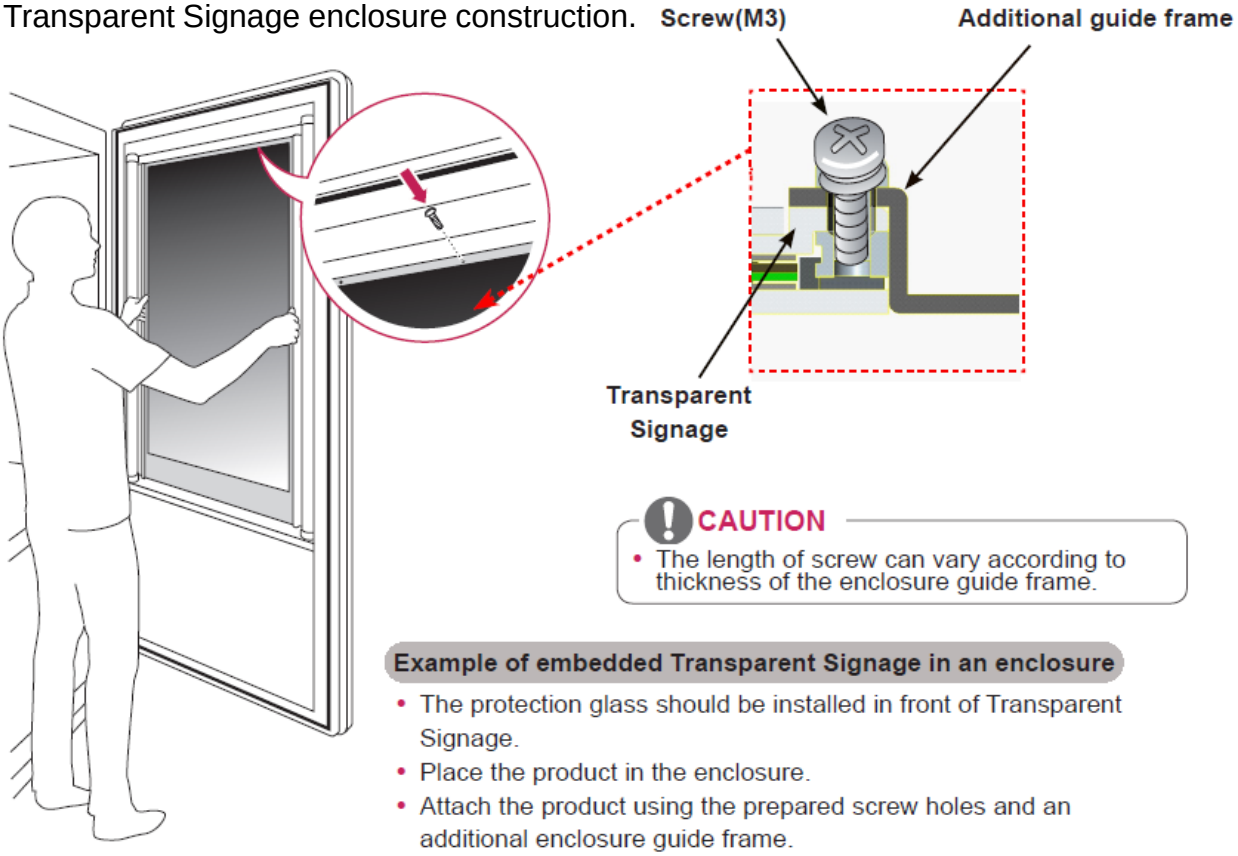


CAUTION

- The 26TS30MF model don't support the portrait mode because of module characteristic

3-3. Attach the product using the prepared screw holes (Mandatory)

- Transparent Signage enclosure construction.



CAUTION

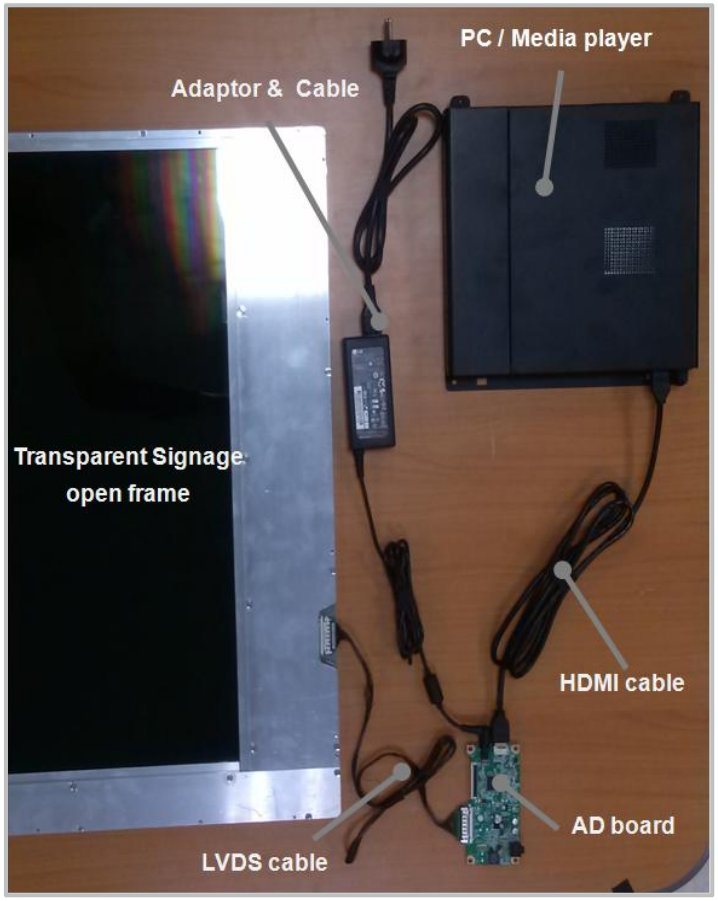
- The length of screw can vary according to thickness of the enclosure guide frame.

Example of embedded Transparent Signage in an enclosure

- The protection glass should be installed in front of Transparent Signage.
- Place the product in the enclosure.
- Attach the product using the prepared screw holes and an additional enclosure guide frame.

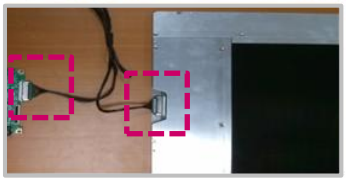
3-4. How to connect cable assembly

Cable assembly

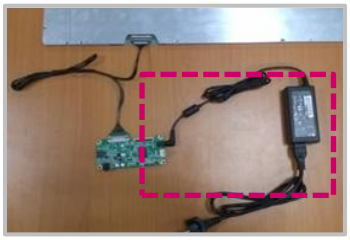


1 Connect the LVDS Cable with Transparent Signage

2 Connect the LVDS Cable with AD board



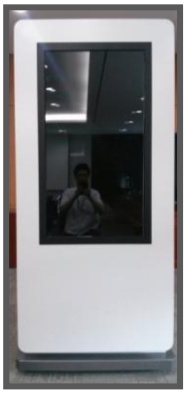
3 Connect the Adaptor cable with AD board



4 Connect the AD board with PC using a HDMI cable.

3-5. Refer to ventilation hole of enclosure

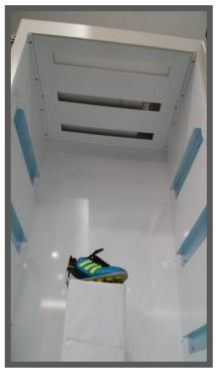
•Transparent Signage enclosure construction



Front view

Side view

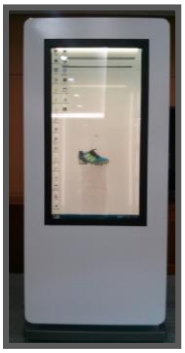
Back view



Opening the door view

3-6. Refer to lighting set up

•Transparent Signage enclosure construction



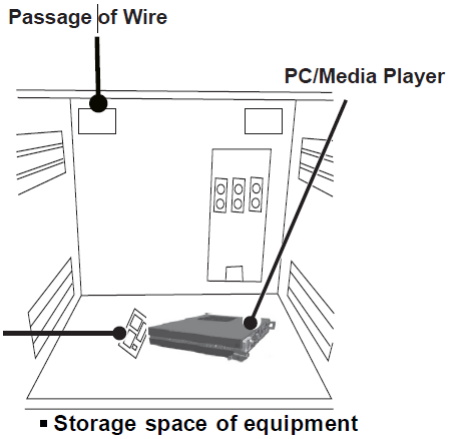
Working display with enclosure

Side type lighting

Ceiling type lighting

3-7. Refer to storage place (AD Board, Media Player)

• Example of storage place located under enclosure

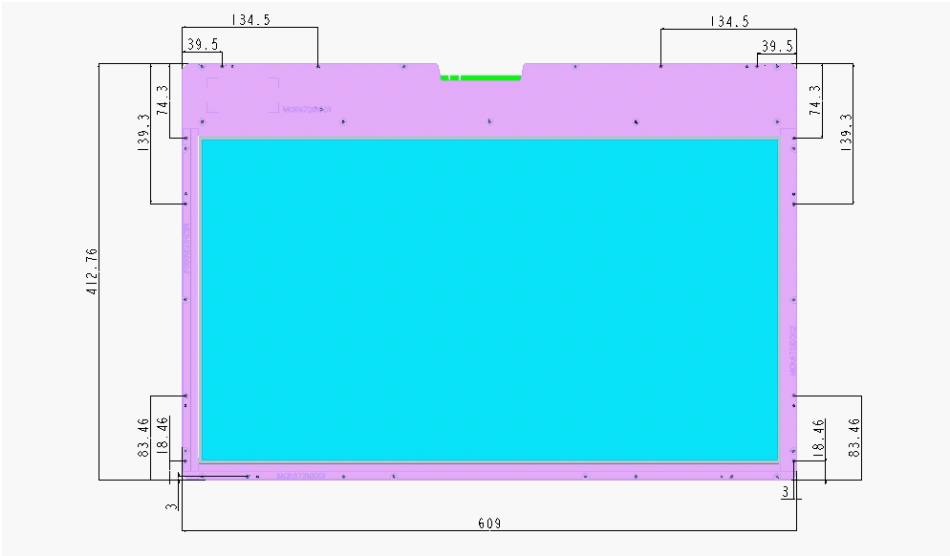


▪ Storage space of equipment

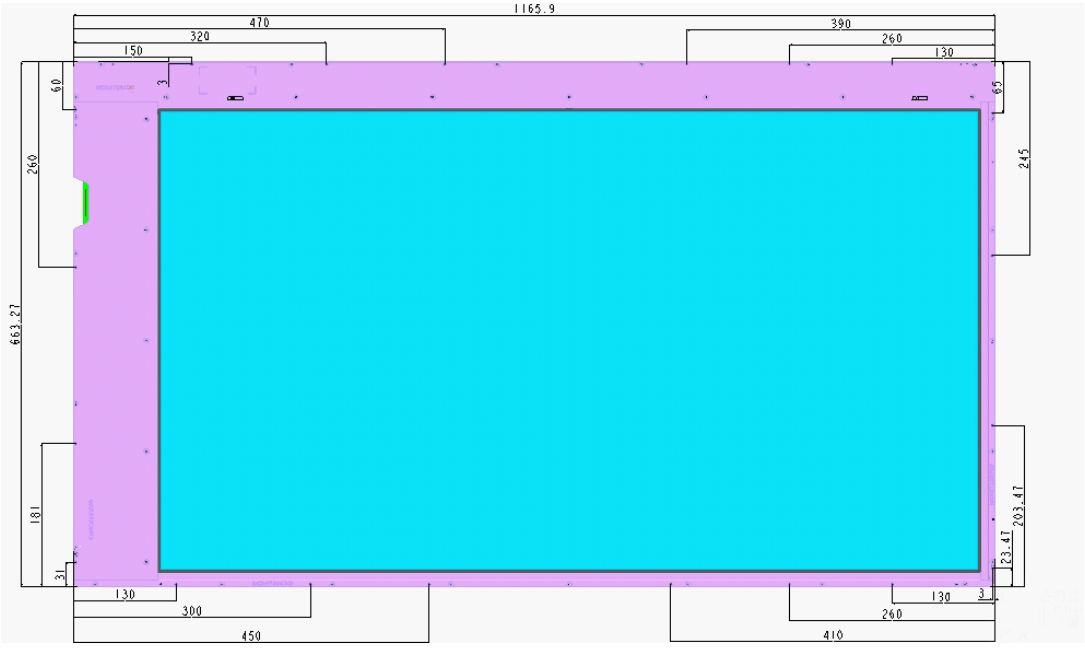
▪ **Storage space of equipment**

3-8. Dimension of Screw Holes

- Transparent Signage enclosure construction
- Dimension of Screw Holes : You should use M3 screws to mount the monitor. There are 16ea(26”),20ea(47”) prepared screw holes on the rear side of the product.
- Caution : The length of screw can vary according to thickness of the enclosure guide frame. So please check this.



[Screw hole of backside for 26TS30MF]

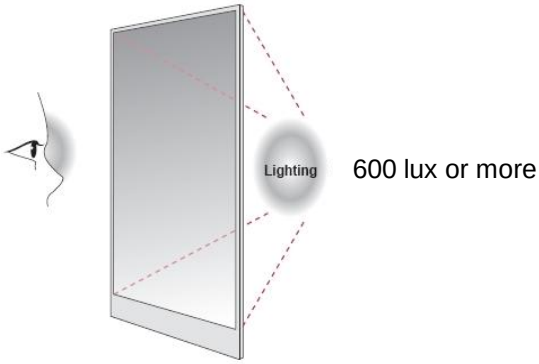


[Screw hole of backside for 47TS30MF]

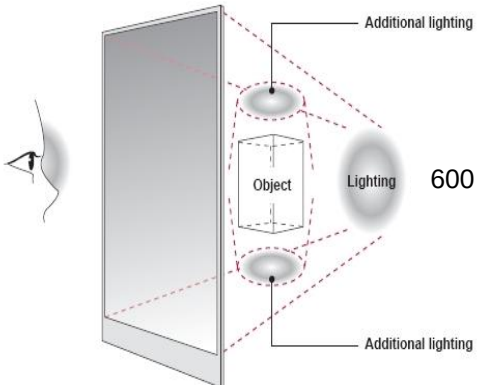
3-9. Recommendation: Lighting is 600 LUX or more

- This product must be installed with lighting.
- The Lighting must be installed behind the product so that the display can be seen clearly.

Example of lighting



Side type lighting



Ceiling type lighting

- Installing a certain object behind the screen may require additional lighting.

NOTE

- The minimum required lighting luminance can vary according to the environmental conditions and enclosure design.

4-1. Precaution in movement

- Adhere to the warning signs printed on the Box.

Do not Clamp.

Do not drop from stacking.

Do not drop from clamping.

4 Persons needed for transport

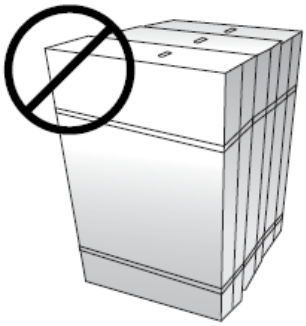
2 Persons needed for transport

Do not transport horizontally.

Load with care.

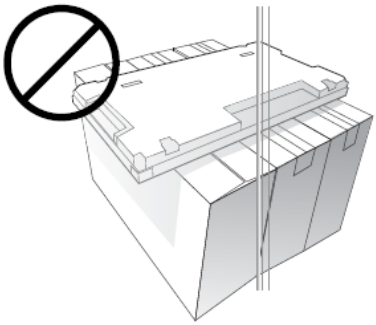
Do not drop from carrying.

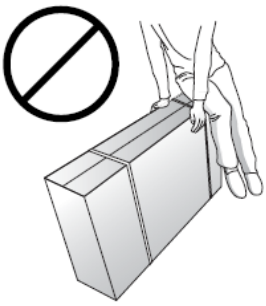
Don’t tumble the Set box sideward down.



Model:
47WV30MS
47WV30BR
47WV30BS
47WV30-BAAM
47WV30-BAAL

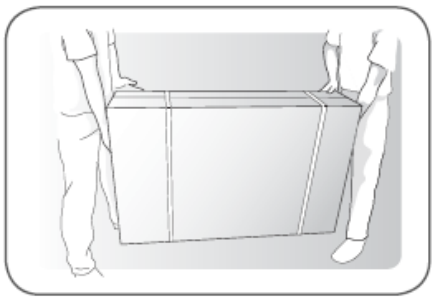
Don’t lie on or lean on the Set box.

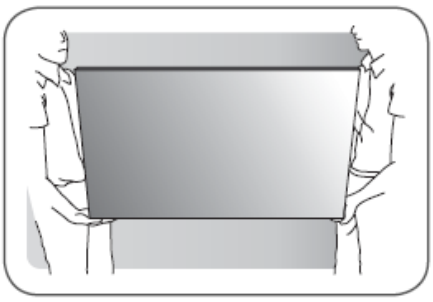




Precaution in Handling

- Move the Set as a team of 2 persons.
- When you move the bare Set, please use one hand on grabbing the handle and the other support under the Set.

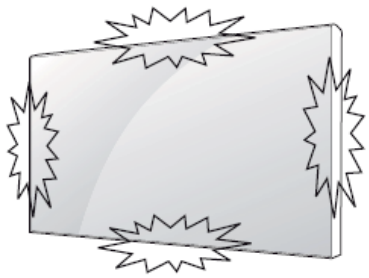




CAUTION

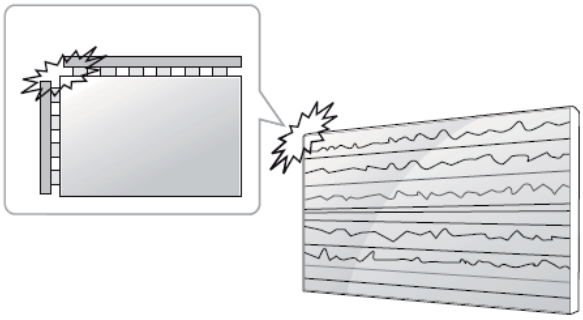
- This way up/ Fragile/ Keep away from rain/ Stacking limit 4.

Causes & Phenomena of the Line Defect



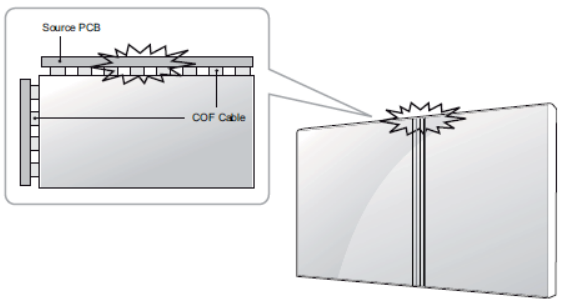
The line defect would occur on your Set if you strike on the edge of the Set.

LOG (LINE ON GLASS) DEFECT

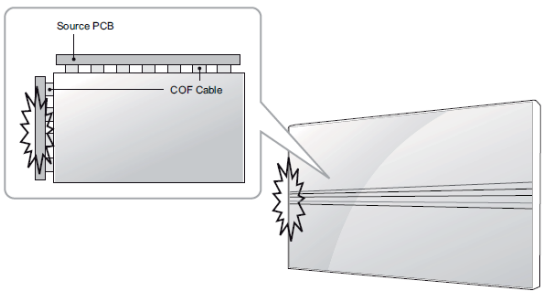


Shock on Module Left/Top Corner Left/Top LOG Crack Horizontal Line Defect

LOG (LINE ON GLASS) DEFECT



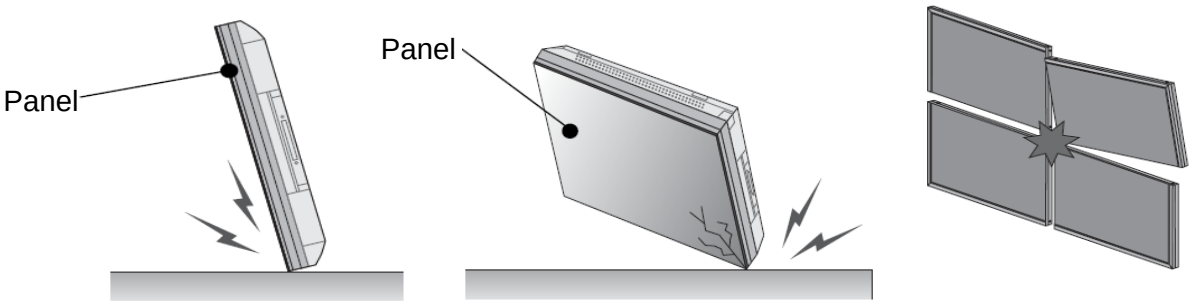
Shock on Module Top Side → Top COF Crack
→Vertical Line Defect

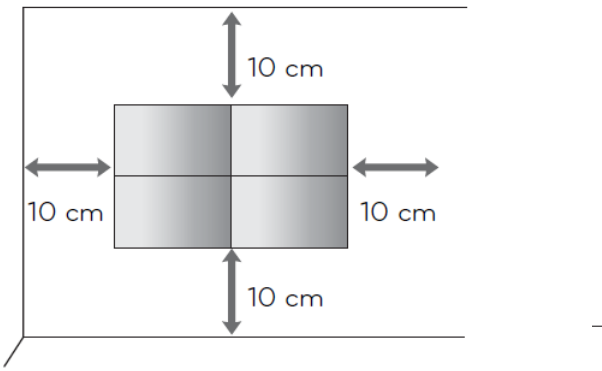


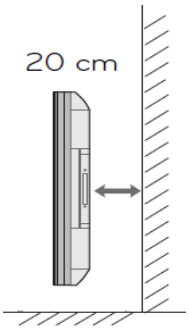
Shock on Module Left Side → Left COF Crack
→Horizontal Line Defect

Do not Collide & Install with enough airflow

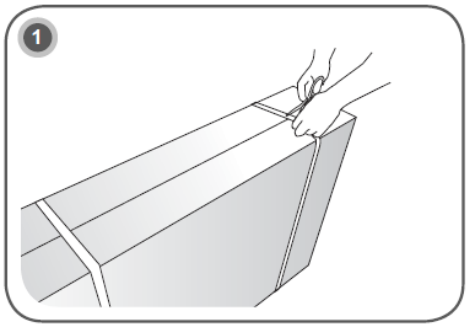
- Be careful not to collide the sets with the floor or with each other.
- Install in the space with enough airflow



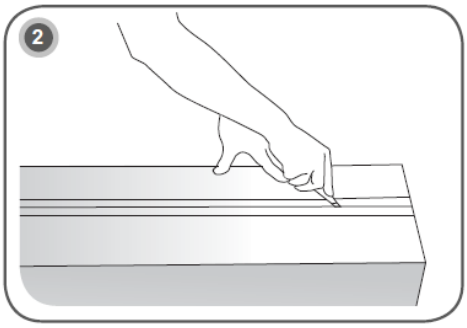




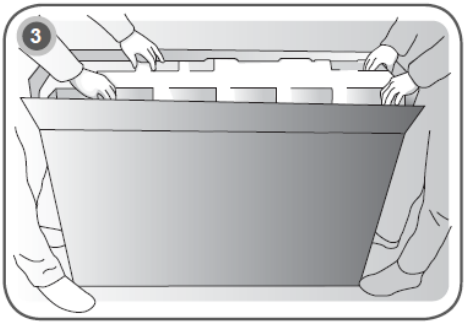
4-2. Installing the Product



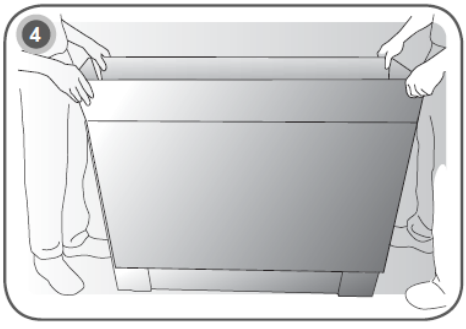
Cut Packing Strap of the Box.



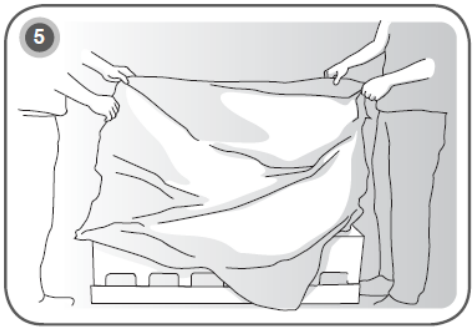
Cut Tape on the Box.



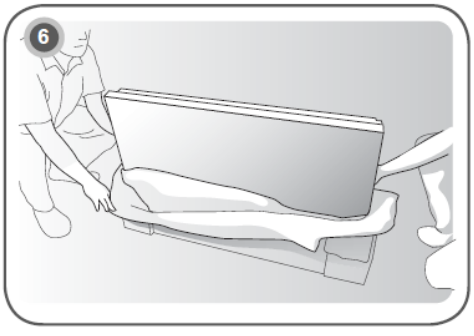
Open the Box and remove the top packing.



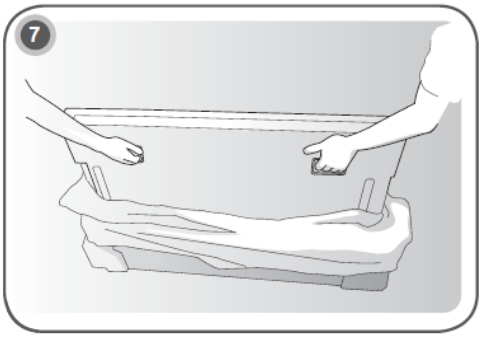
Remove the Upper Box.



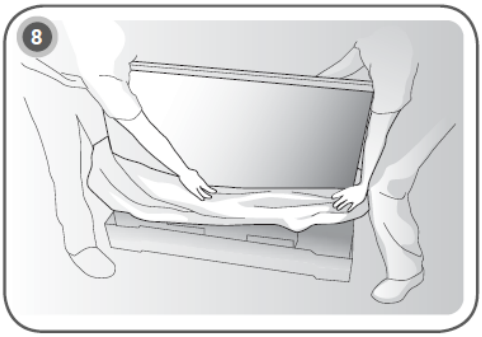
Open the Poly Bag.



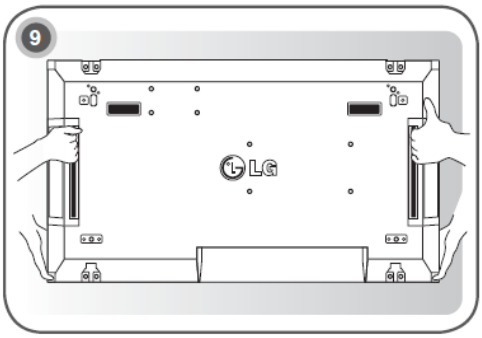
Undress the Poly Bag.



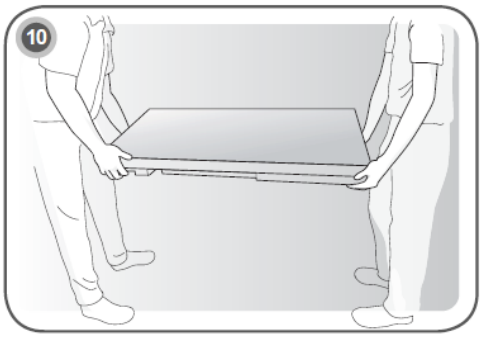
Lift up the Set using the SIDE/BACK Handle.

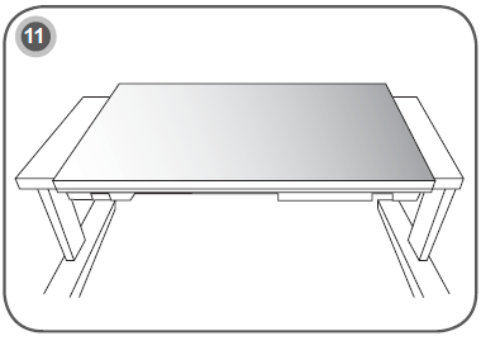


Remove Bottom packing when lifting up the Set.

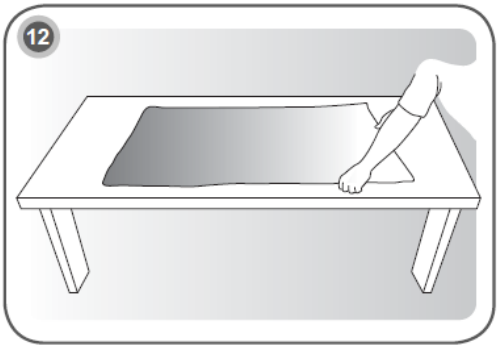


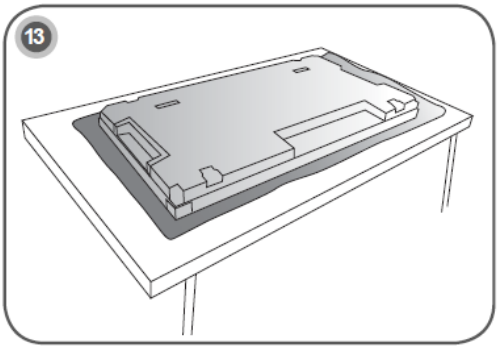
With one hand under the set and the other hand grabbing the set, move the set.



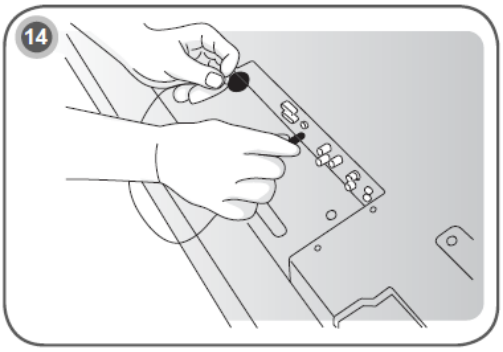


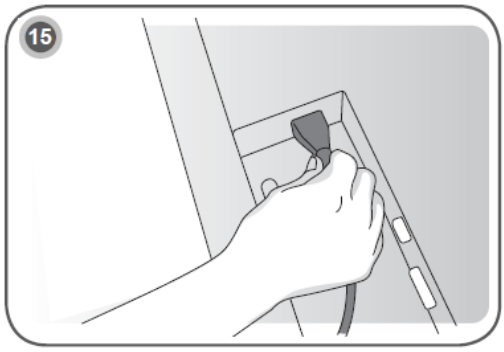
Lay the back of the Set down on the table.





Use the cushion or Pad when you lay the face of the Set downward.

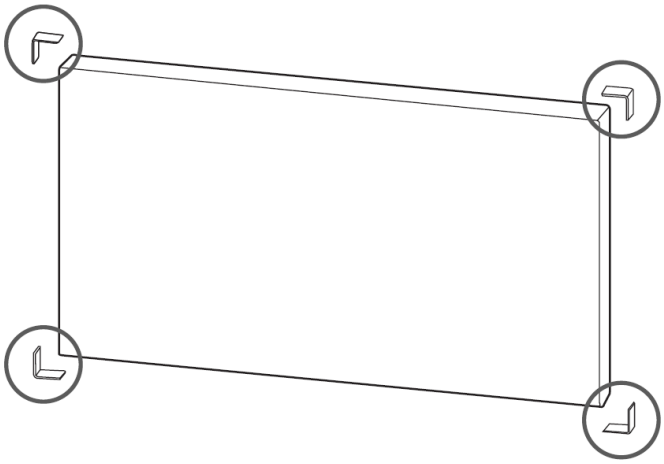




Connect IR receiver to use remocon. And then, connect power code.

Remove L-brackets before Installation

- Remove the L-brackets from each corner of the monitor before installing it.



NOTE

- Keep the removed L-brackets and use them when moving the monitor later.

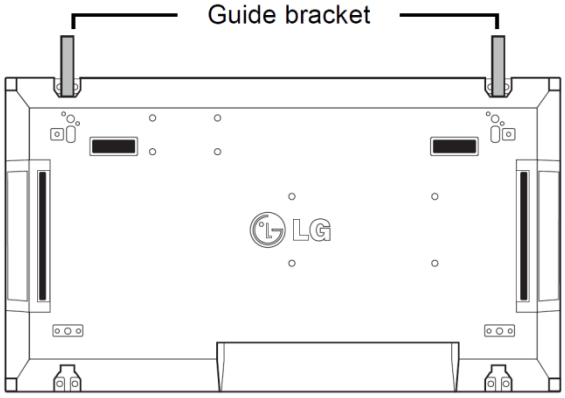
CAUTION

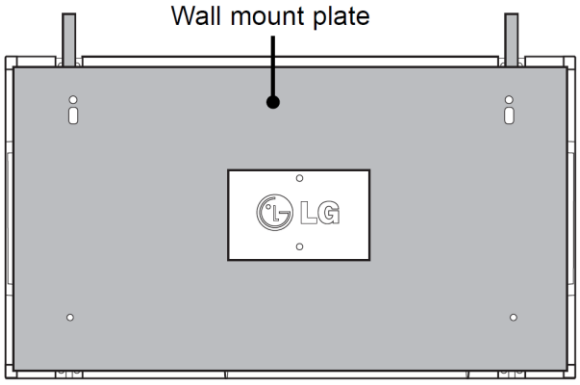
- When you connect Monitor sets for multivision, you may find that the screen color is not the same across all the Monitor sets. If you want to adjust the screen color manually, please refer to the Installation Manual.
- When you install multiple Monitor sets onto a wall, attach the IR Receiver to all the sets, or use an RS-232C cable to connect them and then attach the IR Receiver to the first set.

4-3. Tiling Displays : How to Join Sets - Installing Set 1

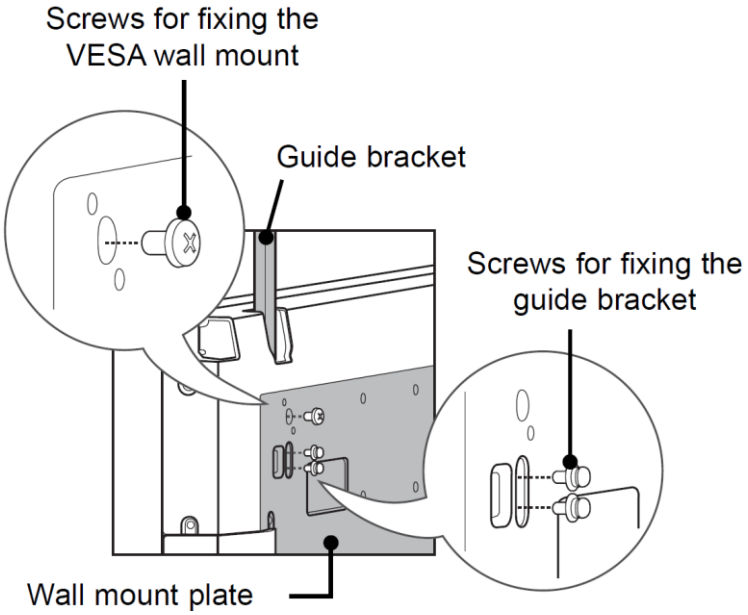
Example of 2 x 2 tiling

- The numbers assigned in this example (#1,#2, #3, #4) are used to demonstrate the installation procedure to ensure it is easy to follow. These numbers have nothing to do with the Set ID that is used to operate the remote control.
- Set the guide bracket into the bracket groove using screws and mount the set to the wall mount plate or the wall.





<Rear view of the set with the wall mount plate>



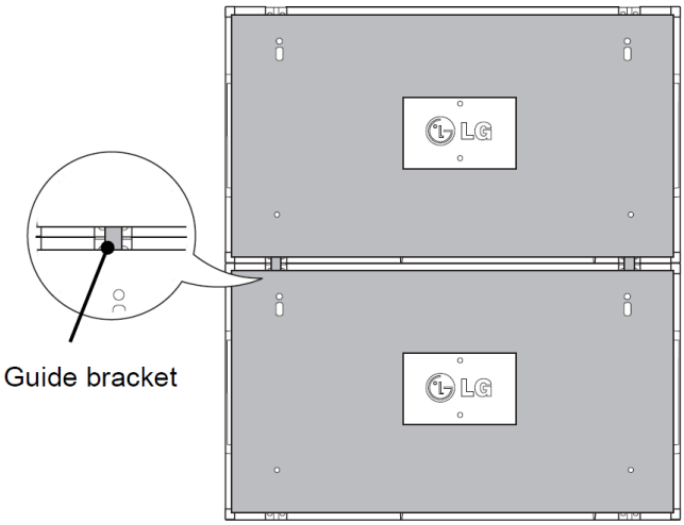
Guide bracket

- The wall mount plate is shaded in gray in the illustration to help you see it.

4-3. Tiling Displays : How to Join Sets - Installing Set 2

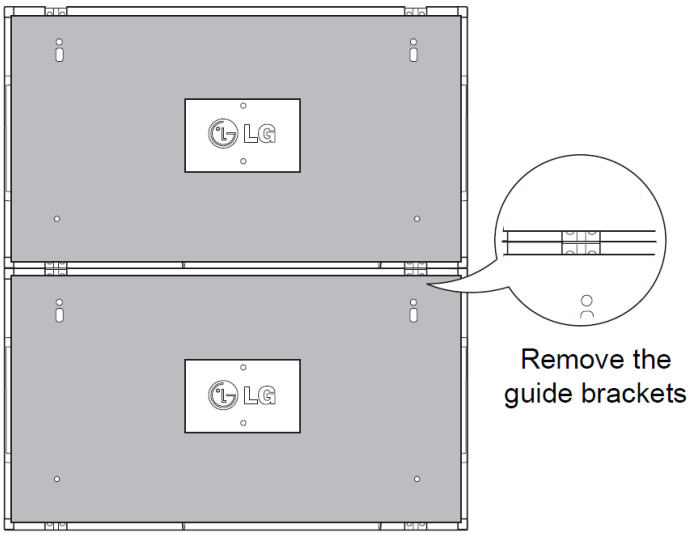
- Join Set 2 to Set 1 using the guide brackets on the top side of Set 1 and mount the two sets to the wall mount plate or the wall.
- Remove the guide brackets after mounting the sets.

▪The sets joined with the guide brackets



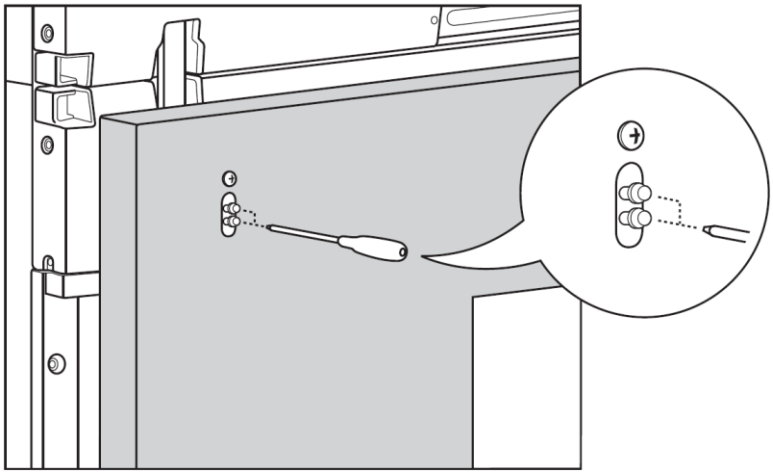
<Rear view of the set with the wall mount plate>

▪The sets after removing the guide brackets

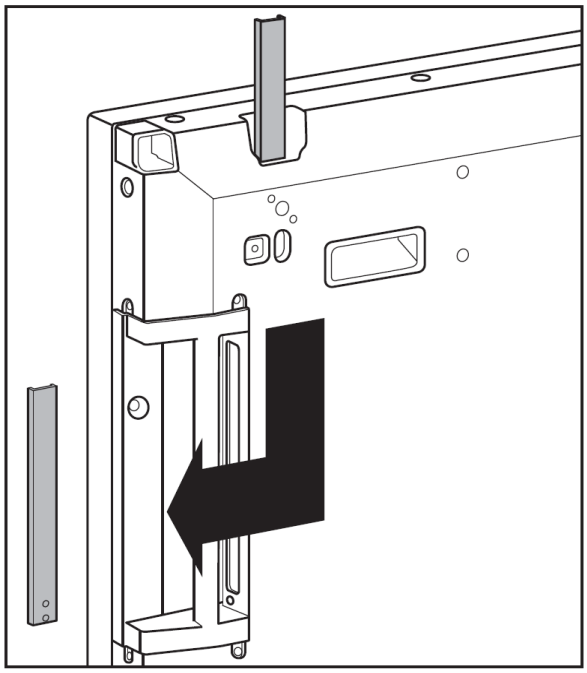


How to remove the guide brackets

- Unscrew the guide bracket screws from the rear of the set and remove the guide brackets.
- Once the screws are removed, the guide brackets will drop. You need to remove them through the gap on the sides of the set.
- This can be done only when there is enough space between the set and the wall mount plate or the wall to unscrew the screws. (Please check whether there is enough space to remove the screws before fixing the guide brackets.)

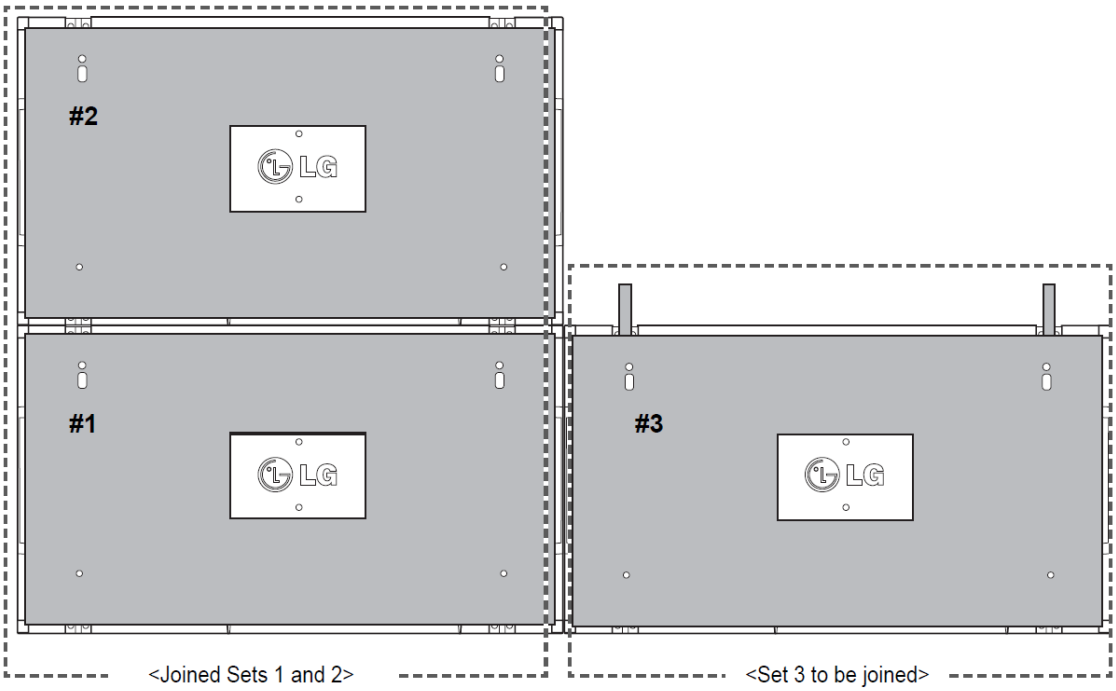


- Removing the guide bracket through the side gap

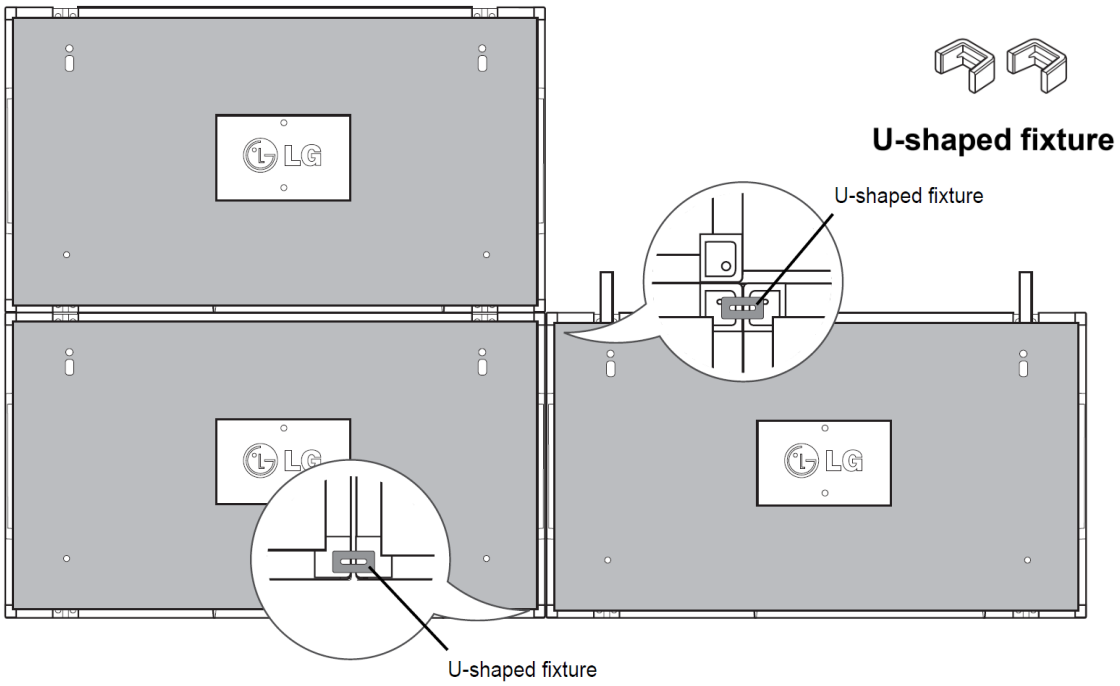


4-3. Tiling Displays : How to Join Sets - Installing Set 3

- Fix the guide brackets to Set 3 following the steps above, and loosely mount the set to the wall mount plate or the wall.

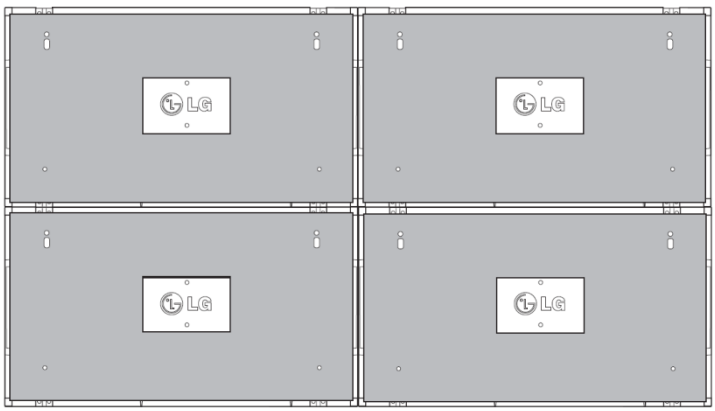


Minimize the space between the sides of the sets using the U-shaped fixture.
When the sets are firmly mounted to the wall, remove the U-shaped fixtures.

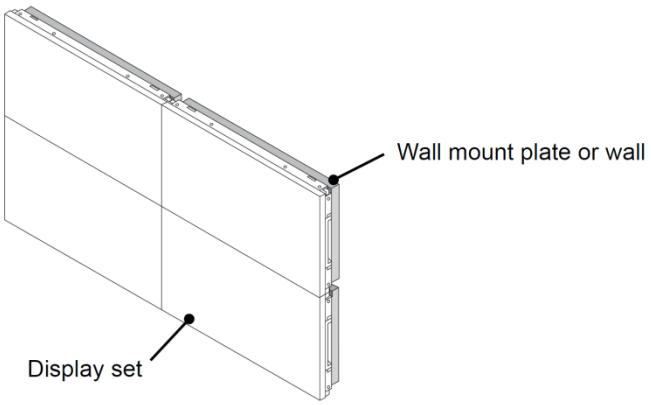


4-3. Tiling Displays : How to Join Sets - Installing Set 4

- Loosely mount Set 4 to the wall mount plate or the wall and minimize the space between the sets using the U-shaped fixtures.
- When Set 4 is firmly mounted to the wall, remove the U-shaped fixtures.
- Remove the guide brackets. See <How to Join Sets - Installing Set2,3>.
- Now the 2 x 2 tiling is complete.
- You can tile in various combinations, such as 3 x 3.



Set 4 joined to the rest of the sets (2 x 2 tiling)



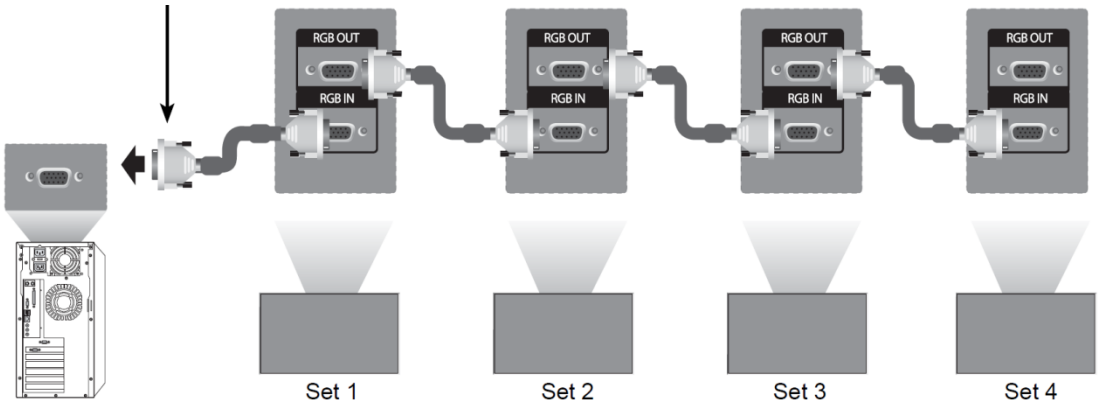
CAUTION

- The guide brackets for tiling should only be used to join sets and should be removed once they are joined.
- The guide brackets should only be used as the assisting tool when tiling sets. The load applied to each set should be supported by the wall mount plate or the wall using a VESA wall mount (800 x 400).
  (Each set must be firmly mounted to the wall mount plate or the wall.)
- The guide brackets must be removed once the sets are joined. When joining the sets without removing the guide brackets, extra caution is required to prevent damage due to the set weight.
- The U-shaped fixtures must also be removed after mounting the set to the wall mount plate or the wall.

4-4. Daisy Chain Monitors

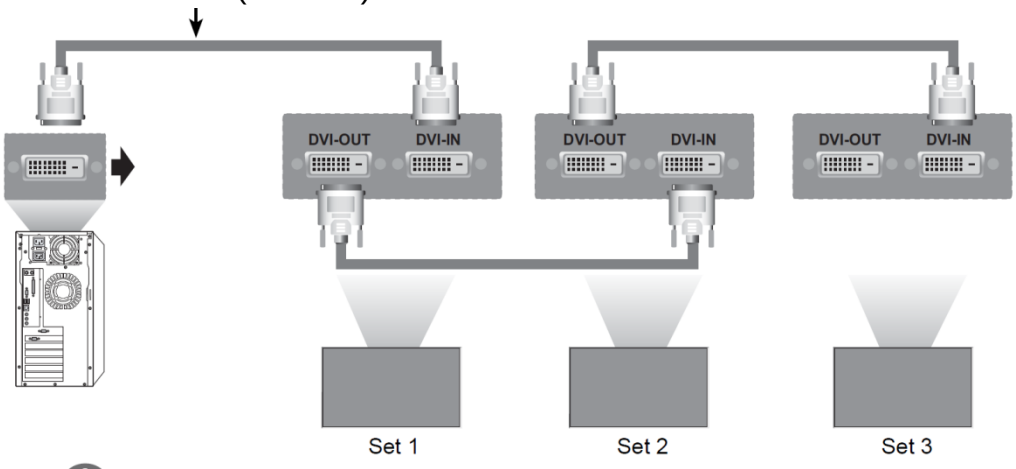
▪ RGB Cable

15-pin D-Sub Signal Cable (Max 3m)



▪ DVI Cable

DVI Cable (Max 3m)

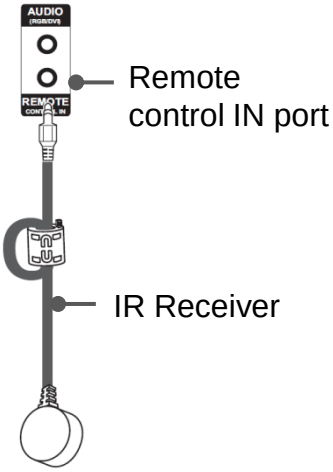


NOTE

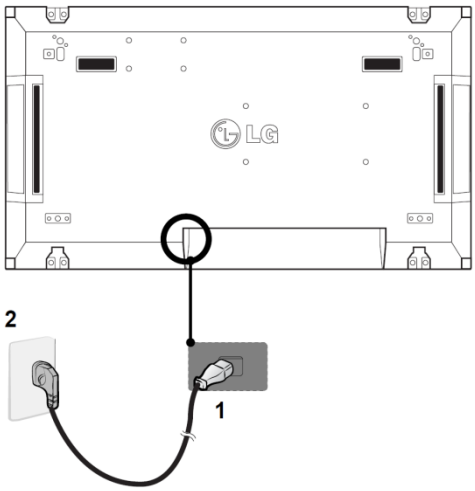
- "Input signal may be degraded or lost when multiple monitors are connected. For DVI, in general, up to 12 monitors can be connected via the DVI Out port (at the recommended resolution) if the signal is stable and there is no cable loss. (If you want to connect more than this number of monitors, we recommended that you use a distributor.)
- When the tile mode is configured via DVI cables, only the monitor that receives first signals can play HDCP-encrypted content. (The DVI Out port does not support HDCP).
- If the signal cable between the product and your PC is too long, make sure to use the DVI (RGB) booster or DVI (RGB) optical cable.
- If input signals are received through the HDMI/DP cable, multiple monitors cannot be connected via the DVI Out port"

4-5. Function Setting (Multivision Configuration) 1/2

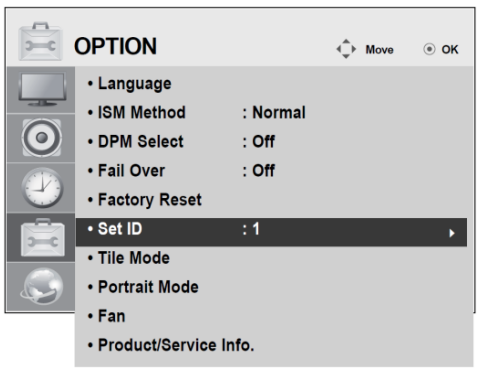
1 IR Receiver connection.



2 Connecting the Power code



3 Set ID setup for each set.



(example) 2x2 Set

Assign the “Set ID” to each Set as below:

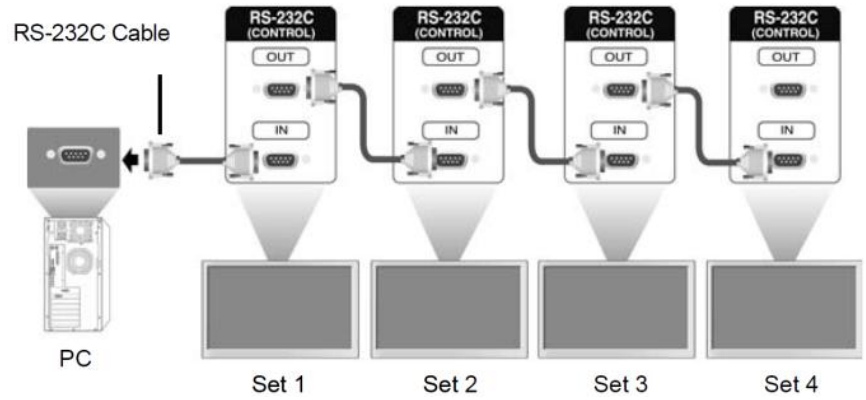
Set ID:1	**Set ID:2**
Set ID:3	**Set ID:4**

4 IR Receiver removal for all sets except for Set 1.

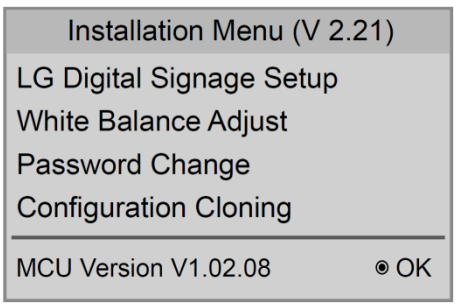
5 Signal cable connection.

4-5. Function Setting (Multivision Configuration) 2/2

6 Connect the Monitor sets, in series, using an RS-232C cable.

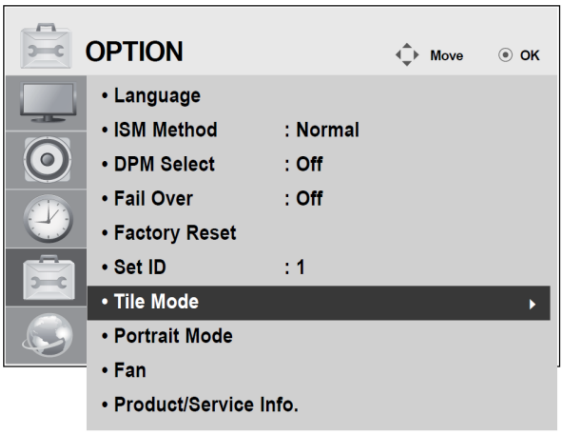


7 Installation Menu setup.



Refer to..
“ Setting the Installation Menu”

8 Tile Mode setup.

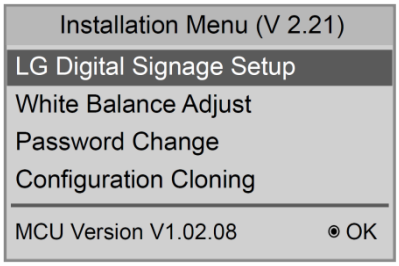


Refer to..
“ Setting the “Setting the Tile Mode”

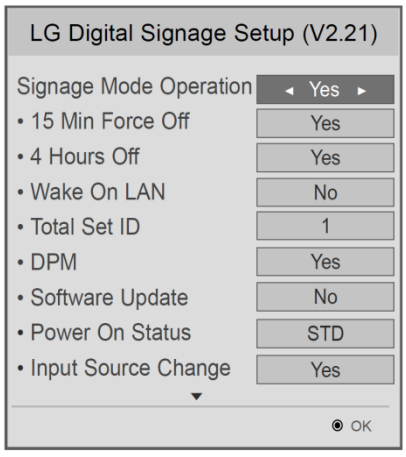
4-6. Setting the Installation Menu (1/2)

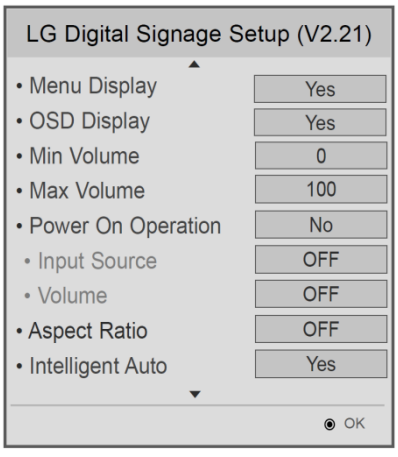
1 If you press the MENU button on the remote control for more than five seconds, the main menu appears and then disappears. The input data is also displayed in the upper left corner of the screen.

2 Press the "0" button four times. Press the OK button.



3 When the Installation Menu is displayed, select the item you want.



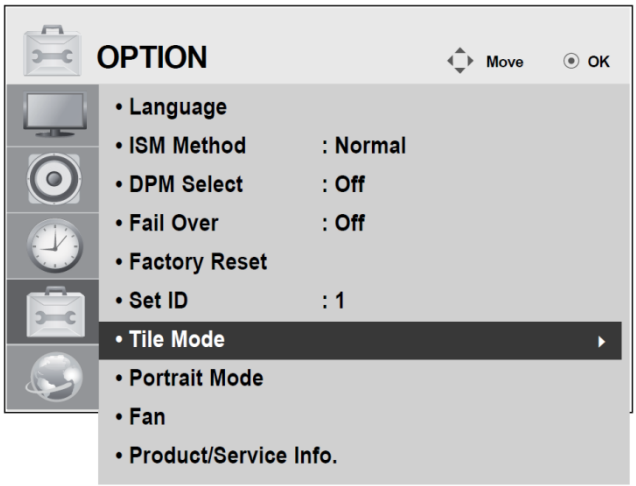


4-6. Setting the Installation Menu (2/2)

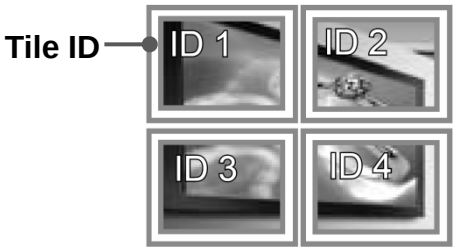
Menu	Description
Signage Mode Operation	Decide to work all functions of 'Signage Mode Operation' or not.
15Min Force Off	Turns off the monitor if there is no input for more than 15 minutes. "No" is the recommended default value setting.
4 hours off	Turns off the monitor if there is no input on the remote control for more than four hours."No" is the recommended default value setting.
Wake On LAN	Turns on the monitor remotely using LAN.
Total Set ID	Sets the maximum value for picture IDs.
DPM	Enters energy saving mode if there is no input signal.
Software Update	Sets whether to use NSU (Network Software Update).
Power On Status	Decide to select working status of Monitor Set when turn on main power.
Input Source Change	Decide to change input source or not by setting 'Input Source Change' as Yes(Change possible) or No(Change impossible).
Menu Display	MENU key does not work if 'Menu Display' is set to No.
OSD Display	Decide to display OSD or not by setting 'OSD Display' as Yes(Mark) or No(No Mark).
Min Volume	Decide 'Min Volume' between changing range 0 to 100.
Max Volume	Decide 'Max Volume' between changing range 0 to 100.
Power On Default	With the power turned on, you can set the 'Input Source' and 'Volume' options.
Input Source	Set whether it is turned on by the set input source or by the last stored input source.
Volume	This sets whether to apply the Volume Level or not when the power is turned on.
Aspect Ratio	With the power turned on, you can set the 'Aspect Ratio' option with the pre-defined value.
Intelligent Auto	If the setting is Yes, Display is automatically arranged through resolution size when you change the resolution at the first.
Factory Reset	If it is set to No, 'Factory Reset' under OPTION is disabled.

4-7. Setting the Tile Mode

- In Tile Mode you can view an image in a larger scale by connecting multiple monitors.
- Tile Mode Off: An input image is not enlarged, and the same image is shown on all connected monitors.
- Tile Mode On: An input image is enlarged according to the value in the H. Set Count and V. Set Count fields.



Example: 2 x 2

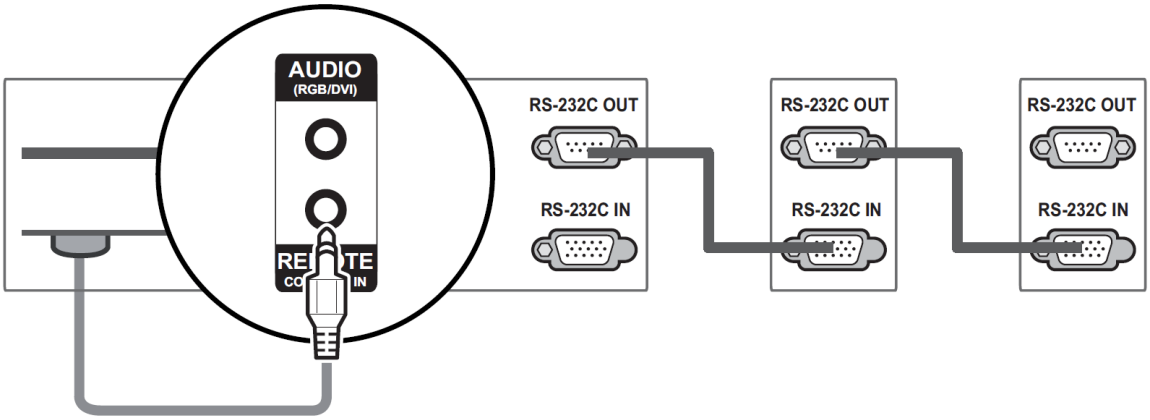


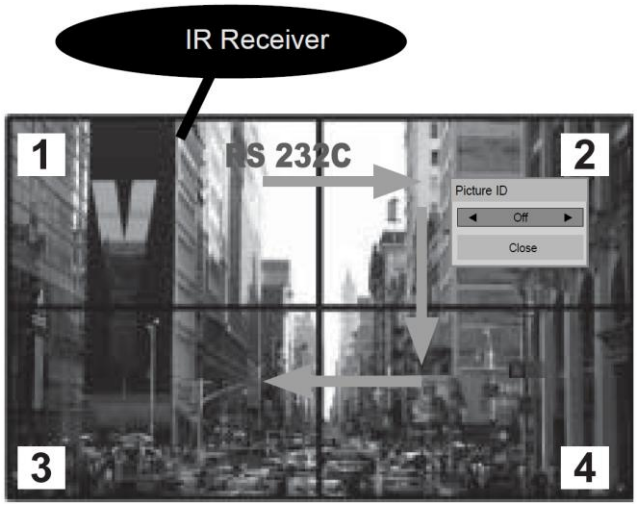
Example: 3 x 3

When using 9 monitors

4-8. Setting the Picture ID (1/2)

- Picture ID is used to change the settings of a specific set (display) using a single IR receiver for multi-vision. The set receiving the IR signal communicates with another set via the RS232 connector. Each set is identified by a Set ID. If you assign the Picture ID using the remote control, only displays with the same Picture ID and Set ID can be controlled remotely.



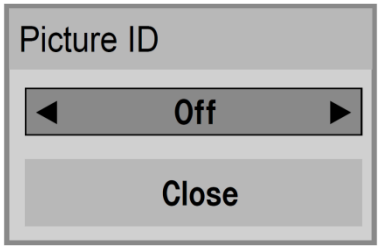


2X2 Multi-Vision (Total Set ID: 4)
Set IDs are assigned as shown in the picture.

4-8. Setting the Picture ID (2/2)

1 Press the ID On (Red) button on the remote control.

2 If you press the left/right buttons or press the ON button repeatedly, the Picture ID cycles through OFF and 1 to 4.Assign the ID you want.



- If you assign the Set ID to each set with multi-vision, and then assign the Picture ID using the red button on the remote control, the key command is displayed for the set with the same Set ID and Picture ID. A set with different Set IDs and Picture IDs cannot be controlled by IR signals.
- Refer to the Set ID on page 46 for assigning a Set ID.
- The maximum value of the Picture ID can be set in the Total Set ID menu.
- Please refer to the Installation Manual for more information on the assignment of a Total Set ID.

NOTE

- For example, if the Picture ID is assigned to 2, the upper right display (Set ID: 2) can be controlled by IR signals.
- For each set, you can change the settings for the PICTURE, AUDIO, TIME, OPTION, NETWORK and MY MEDIA menus or the hot keys on the remote control.
- If you press the ID OFF (Green) button, the Picture IDs for all sets are turned off. If you then press any button on the remote control, all sets will start working again.
- The Picture ID function may not work during MY MEDIA operating.

▪ Revision History

No	Version	Revised Date	Revised Contents
0	V 10	2012.12.13	▪ Initial version
1	V 11	2012.12.17	▪ Update the video wall guide
2	V 12	2012.12.27	▪ 47TS30MF Portrait direction counterclockwise → clockwise ▪ Add Direct Air Cooling Solution (47WX50MF)
3	V13	2013.01.25	▪ Add Screw pitch 0.7mm (6p) ▪ Add description (5p,7p,8p,11p) ▪ Modify a picture (17p)

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